



Miracle Glaze H20

2 component Waterborne Aliphatic Urethane

Product Description

Miracle Glaze H20 is a chemical resistant two-component water-based aliphatic urethane coating having exceptional resistance to most chemicals and excellent anti-soil properties. Displays excellent gloss retention on extended exterior exposures. Odor-free, high gloss coating for areas where solvent odor is a problem.

Recommended Uses

Use as a decorative and protective finish coat for metal, wood, and concrete in severe industrial, marine and process environments. Very good in environments exposed to acids, alkalis, salts and solvents. Recommended in heavy industrial and marine atmospheres where long maintenance free life is required. Use as a sealer (clear) to protect and provide depth of gloss for urethane coated transportation equipment. Especially useful on floors in such areas as aircraft hangers, service bays, and warehouse floors where light reflectance, chemical and abrasion resistance are required. Because of Urocel's high crosslink density and non-toxic cured state it is an acceptable coating for food and beverage process plants and hospital facilities.

| | | |
|------------------|--------------------|------------------|
| Physicals | Volume Solids | 52.1% |
| | Weight solids | 55.6% |
| | VOC | 0.10 lbs./gal. |
| | Weight/gal. | 8.9 lbs. |
| | Temp. Res. | 250°F |
| | Taber Abrasion | 42 mg. loss |
| | Impact D/R | 160/160 in. lbs. |
| | Pendulum Hardness | 168 seconds |
| | Color/Gloss | Color |
| | Sheen | Gloss |

Application

| | |
|-----------------------------|------------------------|
| Recommended Thickness(min.) | 4 -6mils dry |
| Theoretical Coverage | 4 mils DFT 208 sq. ft. |
| Method | Brush, roller, spray |
| Induction Time | none |
| Work-life | 1 hours |
| Thinner | Water |

| | | | |
|--------------------------|-------|-------|-------|
| Drying Time (hrs) | 40°F* | 75°F* | 90°F* |
| • to touch | 4 | 2 | 1.25 |
| • to handle | 14 | 3 | 2 |
| • hard dry | 17 | 4.2 | 3 |

| | | |
|------------------|-------------------------|-------------------------|
| Unit Size | 1 Gallon Unit | 5 Gallon Unit |
| Part A | 1 Gallon (short filled) | 5 Gallon (short filled) |
| Part B | 1 Quart (short filled) | 2 Gallon (short filled) |

Storage

Shelf Life. One year minimum from mfg date.

Limitations:

Apply in good weather when air and surface temperatures are above 40°F. For optimum application properties, bring material to 70-80°F temperature range prior to mixing and application.

Surface Preparation:

Paint only clean dry surfaces. Remove all grease, oil, dirt or other foreign matter by solvent or detergent washing.

Unpainted Surfaces:

Prepare surface and prime, seal, fill or otherwise coat.

Previously Painted Surfaces:

Remove all rust, rust scale, other corrosion products, loose or heavy chalk and loose or scaling paint by "Hand or Power Tool Cleaning" (SSPC-SP2 or 3 respectively). "Sand or Brush Blast" (SSPC-SP7) any glossy areas until dull. Spot prime bare areas as recommended. To check compatibility apply coating to representative area of at least 25 sq. ft. and allow to cure and age several weeks. Then inspect for adhesion failure, wrinkling, lifting, blistering or any other sign of incompatibility present. Coating with UROCEL can then proceed.

Concrete:

(1) "Brush-Blast Cleaning (SSPC-SP7) can be used to prepare the concrete by removing all foreign matter and provide tooth for bonding. Remove all dust from surface before starting the application of the coating. Pilgrim B1 or B2 is recommended to prime and seal concrete.

(2) "Acid-Etching" All surfaces shall be acid etched with Muriatic Acid solution (1 part acid to 2 parts water). Apply solution by brush or spray until surface is thoroughly wetted. When bubbling ceases (5-10 minutes), wash down surface with fresh water and scrub with a stiff brush. Rinse with plenty of fresh water. If surface is acidic (ph below 7), neutralize surface by washing with 1-2% ammonia solution.

Mixing:

Material is supplied in 2 containers as a unit. Always mix a complete unit in the proportions supplied. Combine entire contents of Part B with Part A and mix thoroughly with a power agitator.

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Thinning:

None required

Application:

Apply by brush, roller, or spray. Apply at 8-12 mils wet.

Equipment:

Brush: Good quality 4" wide brush with short hair bristle.

Roller: 1/8" mohair or foam roller.

Conventional Spray: DeVilbiss MBC-510 gun; E tip and 704 air cap; 3/8" ID material hose; double regulated pressure tank with oil and moisture separator.

Work Stoppages:

Do not allow material to remain in hoses. Release pressure from pressure tank and disconnect material hose. Thoroughly flush hose and spray gun with water. Do not seal any unused material. CO2 will generate, creating pressure in the container.

Cleanup:

Clean all equipment immediately after use with Water. Spray equipment requires flushing with either of these solvents. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature, elapsed time including delay, etc.

Welding:

In the event welding or flame cutting is performed on metal coated with this product, do so in accordance with instructions in ANSI/ASC Z 49.1, "Safety in Welding and Cutting." All welded, burned, or otherwise damaged areas should be reprepared to base metal and recoated as specified.

Safety:

Adequate health and safety precautions should be observed during all storage, handling, use and drying periods. For safe usage, user is specifically directed to consult the current "Material Safety Data Sheet" for this product. When using this product in a confined space or closed area, consult the current OSHA, or ANSI bulletins on safety requirements.

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Formulation Characteristics

| | |
|-----------------------|------|
| Weigh, Solids, % | 55.6 |
| Volume Solids, % | 52.1 |
| Weight per gal., lbs. | 8.9 |
| VOC, lbs./gal. | .1 |
| Maximum DFT, mils | 6 |
| Recommended DFT, mils | 4 |

Pot Life

Viscosity development over time

| | |
|-------------------|------|
| Initial, cps | 460 |
| After 1 hr., cps | 1150 |
| After 2 hrs., cps | 1490 |

Pot Life

Gloss change over time

| | |
|--------------|----|
| Initial | 89 |
| After 1 hr. | 90 |
| After 2 hrs. | 80 |

Drying Time

Gardner dry times @ 75°F/50% humidity

| | |
|--------------|-----|
| Set to touch | 2 |
| Surface dry | 3 |
| Hard Dry | 4.2 |

Drying Time

Gardner dry times @ 40°F/50% humidity

| | |
|--------------|----|
| Set to touch | 4 |
| Surface dry | 14 |
| Hard Dry | 17 |

Drying Time

Gardner dry times @ 90°F/75% humidity

| | |
|--------------|------|
| Set to touch | 1.25 |
| Surface dry | 2 |
| Hard Dry | 2.75 |

Hardness

Pendulum Hardness development

| | |
|--------|------|
| 1 day | 43.4 |
| 5 day | 154 |
| 7 day | 168 |
| 14 day | 172 |

Chemical Resistance

| | | |
|-----------------|---------|------------------|
| 10% Acetic Acid | 4 hrs. | NE |
| | 24 hrs. | blister |
| 10% H2SO4 | 4 hrs. | NE |
| | 24 hrs. | NE |
| 10% HCL | 4 hrs. | NE |
| | 24 hrs. | NE |
| 14%NH,OH | 4 hrs. | NE |
| | 24 hrs. | NE |
| 50%NaOH | 4 hrs. | NE |
| | 24 hrs. | NE |
| IPA | 4 hrs. | NE |
| | 24 hrs. | NE |
| MEK | 4 hrs. | NE |
| | 24 hrs. | NE |
| Gasoline | 4 hrs. | NE |
| | 24 hrs. | NE |
| DI Water | 4 hrs. | NE |
| | 24 hrs. | NE |
| 10% Bleach | 4 hrs. | NE |
| | 24 hrs. | NE |
| Brake Fluid | 1 day | NE |
| | 3 day | NE |
| | 6 day | NE |
| | 8 day | Very slight lift |
| | 10 day | Very slight lift |
| Skydrol | 1 day | NE |
| | 3 day | NE |
| | 6 day | NE |
| | 8 day | NE |
| | 10 day | NE |

Good tire stain resistance